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INTERACTIVE SCANNER TO HAVE BETTER SCANNING EXPERIENCE

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Interactive Scanner to Have Better Scanning Experience

Overview

By take advantage of CIS/CCD's scanning function to collect Scanning target raw image background information, FW could get the target size and position by analysing the scan raw image background difference. There will have a message and sound delivered from control panel to remind user to replace the target if the target placement will leading image missing or to remind copy target paper size is different with system setting , or to suggest to use ID copy function to copy small size media, new design makes the Scanner could interactive with users, bring to user more friendly and good experience .

Novel Point

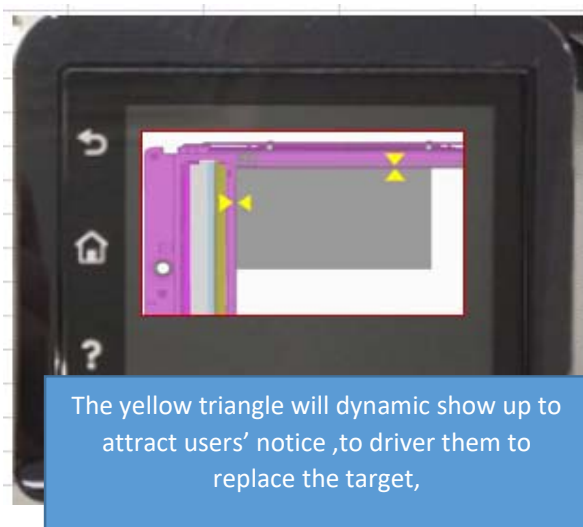
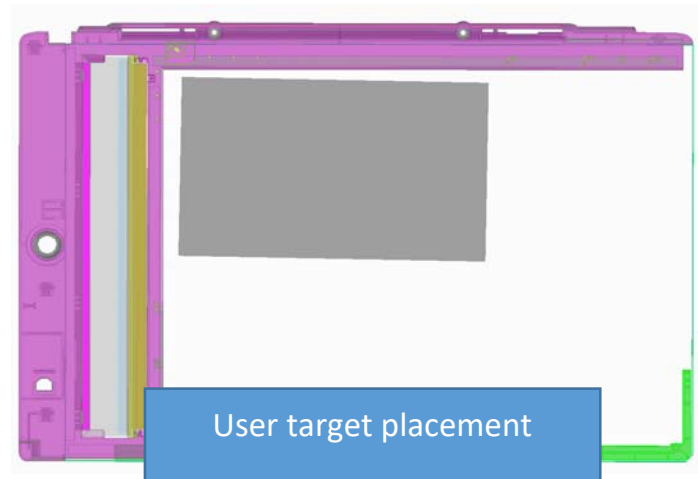
This disclosure is to make use of the CIS or CCD to recognize the scan target size and scan target placement location, by this information:

1. if the FW recognizes the target size is near the ID size, FW will drive Control panel to pop out the message to remind the user to confirm whether he or she will run the ID copy, if yes, control panel will shift to ID copy mode;
2. if the FW compares the target size is different with paper setting, FW will send message in control panel to remind the user to notice the difference, to guide the user to reset the paper size;
3. If the FW recognizes the target placement in the glass surface is too tilting to lead some information will be cut, FW will send animation in the control panel to remind the user to replace the target to avoid partial target cut by the FW

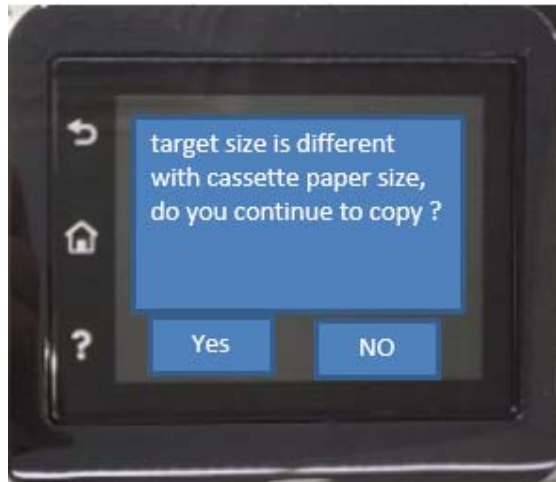
How it works

FW could take advantage of hardware CIS/CCD to recognize the scanning target edge by distinguishing the value error between Scanning edge value and gate value. By making use of this data, CIS/CCD pre-Scan the target position and size during moving from home position to the other end side, after this, FW could calculate the angle and distance between the target edge and Bezel edge or Scanner X axis & Y axis, if the angle is

bigger than a special data(such like 2degree) or distance is bigger than the special data, or both of them are larger than predefined data ,FW will deliver Control panel a dynamic picture and sound to direct user to adjust the tilting target to a good position .



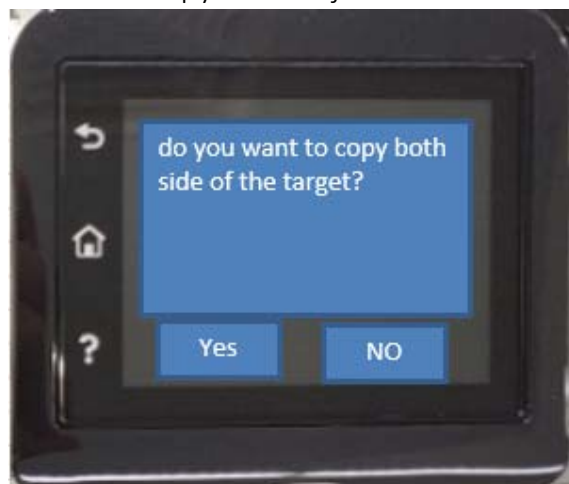
After FW calculates the target size and will take it to compare with system paper size setting compare, if there has difference, FW will deliver message and sound by control panel to remind user to confirm or correct the difference, and then proceed the copy, to avoid deliver bad copy result to user.



If users press button "No", FW will change the paper size setting for one times , and continue to perform copy;

If users press button "YES" ,Scanner will perform the copy.

If FW detects the paper size is similar like ID card size (100X60 or 60X100),FW will deliver a message and sound by Control panel to remind user whether he or she plans to copy cards both side , if yes, FW will continue to CIS/CCD will scanning and move back to home position to finish the copy or scan job.



If users press button "No", CIS/CCD will continue to copy

If users press button YES", control panel will pop out a new page to show where to put the card for one side and the other side.

Disclosure by Da-Pend Li, HP Inc